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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application:      Balamucki, et al.  
Serial No.:              10/051,821  
Filed:                    01/17/2002  
Group Art Unit:        3683  
Examiner:                Kramer, Devon C.  
For:                        SHIFT LEVER WITH COUNTERBALANCE

**APPEAL BRIEF**

Mail Stop Appeal Brief - Patents  
Commissioner For Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Subsequent to the filing of the Notice of Appeal on December 16, 2003, Applicant now submits its brief. Fees in the amount of \$330.00 are paid by the attached check. Applicant believes that no additional fees are necessary, however, the Commissioner is authorized to charge Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds for any additional fees or credit the account for any overpayment.

**REAL PARTY IN INTEREST**

The real party in interest is ZF Meritor, LLC the assignee of the entire right and interest in this Application.

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### **RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences.

### **STATUS OF CLAIMS**

Claims 1-11 and 21 stand finally rejected.

### **STATUS OF AMENDMENTS**

The amendment of November 17, 2003 has not been entered.

### **SUMMARY OF THE INVENTION**

The elected invention relates to a transmission assembly as shown in Figures 7-9. As described by Claim 1, the transmission assembly has a shift lever 88, which through a first arm 110 supports a counterbalance 94 and through a second arm 114 engages a transmission 106. The shift lever 88 pivots about a pivot 98 and is used to change the gears of the transmission 106.

During operation of a vehicle on road, the transmission assembly may oscillate due to rough road conditions, such as potholes. These road vibrations may cause the shift lever 88 to “jump out” of gear undesirably. The counterbalance 94 serves to reduce the chance of shift lever “jump out” by moving the center of mass of the shift lever. The shift lever 88 normally has a first center of mass at a first location relative to the pivot 98. The counterbalance 94 has a second center of mass at a second location relative to the pivot 98. By attaching the counterbalance 94 to the shift lever, the combined assembly has a total center of mass at a third location relative to the pivot 98 between the first

location and the second location. This third location is different from the first location in three different dimensions. This feature characterizes Claims 1-11.

The counterbalance 94 may adjust the center of mass of the shift lever 88 up or down. The first location may have a first horizontal location and a first vertical location and the second location may have a second horizontal location and a second vertical location. As required by Claim 4, the counterbalance 94 locates the total center of mass between the first vertical location and the second vertical location. This vertical location of the total center of mass may be closer to pivot 98 than the original location of the center of mass of the shift lever 88. The counterbalance 94 may also adjust the center of mass of the shift lever 88 both horizontally and vertically. (See Claim 6). As described by Claim 7, the counterbalance 94 may have an isolator to resiliently connect the counterbalance 94 to the shift lever 32. [See Figures 3A and 3B]. The isolator serves to dampen vibration of the counterbalance 94 and the shift lever 32.

Claim 21 describes another aspect of the inventive transmission assembly. The transmission assembly has a transmission 106 and a shift lever 88. The shift lever 88 pivots about a pivot 98 and has a first center of mass at a first location. The shift lever 88 is connected to a counterbalance 94, which has a second center of mass at a second location relative to the pivot 98. As shown in Figure 9, the total center of mass for the shift lever 88 is located at a third location between the first location and the second location. The third location is different from the first location in two different horizontal dimensions. Accordingly, the counterbalance 94 moves the center of mass of the shift lever 88 forward or back and from side to side.

### **ISSUES**

- A. Whether Claims 1-11 and 21 are properly rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- B. Whether Claims 1-6, 8-11 and 21 are properly rejected under 35 U.S.C. 102(b) as being anticipated by Bair (U.S. Patent No. 5,758,543).
- C. Whether Claims 1, 7-9 and 21 are properly rejected under 35 U.S.C. 102(b) as being anticipated by Onoguchi et al. (JP 3,134,367).

### **GROUPINGS OF CLAIMS**

- A. The rejection of Claims 1-11 and 21 under 35 U.S.C. 112 is contested.
- B. The rejection of Claim 21 under 35 U.S.C. 112 is separately contested, that is, the rejection of Claim 21 does not stand or fall with the rejection of the other claims.
- C. The rejection of Claims 1-6, 8-11 and 21 under 35 U.S.C. 102(b) based on Bair (U.S. Patent No. 5,758,543) is contested.
- D. The rejection of Claim 4 is separately contested, that is, the rejection of Claim 4 does not stand or fall with the rejection of the other claims.
- E. The rejection of Claim 5 is separately contested, that is, the rejection of Claim 5 does not stand or fall with the rejection of the other claims.
- F. The rejection of Claim 6 is separately contested, that is, the rejection of Claim 6 does not stand or fall with the rejection of the other claims.
- G. The rejection of Claim 21 is separately contested, that is, the rejection of Claim 21 does not stand or fall with the rejection of the other claims.

- H. The rejection of Claims 1, 7-9 and 21 under 35 U.S.C. 102(b) based on Onoguchi et al. (JP 3,134,367) is contested.
- I. The rejection of Claim 7 is separately contested, that is, the rejection of Claim 7 does not stand or fall with the rejection of the other claims.
- J. The rejection of Claim 21 is separately contested, that is, the rejection of Claim 21 does not stand or fall with the rejection of the other claims.

### **PATENTABILITY ARGUMENTS**

#### **The 35 U.S.C. §112 Rejection**

**A. The rejection of Claims 1- 11 and 21 under 35 U.S.C. 112 is improper.**

The Examiner rejected Claims 1-11 and 21 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner bases his rejection on the following language of Claim 1, which the Examiner also incorrectly presumes to be found in Claim 21: “a third location relative to said pivot, said third location different from said first location in three different dimensions.” [Final Office Action (9/16/03), p. 2]. The Examiner contends that “It is unclear what applicant means by ‘dimensions.’ [Final Office Action (9/16/03), p. 2]. The Examiner notes that “Applicant describes different ‘axis’ in the specification.” [Final Office Action (9/16/03), p. 2].

As noted by the MPEP 2171, the standard by which “indefiniteness” is judged is based upon “whether the scope of the claim is clear to a hypothetical person possessing the ordinary level of skill in the pertinent art.” [See MPEP 2171]. Here, there can be no

doubt that Applicant meets this standard. First, the dictionary defines “dimension” as follows:

...one of three coordinates determining a position in space...

[Webster’s Ninth New Collegiate Dictionary, p. 355 (1991)]. This definition is also consistent with another dictionary’s definition:

...Any of the least number of independent coordinates required to specify a point in space uniquely...

[American Heritage Dictionary, p. 397 (1991)] Hence, the ordinary meaning of “dimension” within the context of “a third location relative to said pivot, said third location different from said first location in three different dimensions” is not indefinite. One of ordinary skill in the art would recognize that the “third location” differs from the “first location” in “three different dimensions”, i.e. the three coordinates determining a position in space (x,y,z).

Second, within the context of the claim language cited by the Examiner, “dimension” is clearly understandable. A “third location different from said first location in three different dimensions” unequivocally relates to a difference in the three coordinates of space. In addition, the specification also details the meaning of dimension by reference to the X, Y and Z coordinates. Accordingly, the rejection of Claims 1-11 and 21 pursuant to 35 U.S.C. 112 is improper.

**B. The rejection of Claim 21 under 35 U.S.C. 112 is improper.**

Claim 21 requires “a counterbalance operatively connected to said shift lever and having a second center of mass at a second location relative to said pivot different than said first location, producing a total center of mass for said shift lever located between said first location and said second location at a third location, said third location different

from said first location in two different horizontal dimensions.” [Claim 21(emphasis added)]. This language is distinct from the language of claim 1. Apparently, the Examiner contends that the word “dimensions” is indefinite in both claim 1 and claim 21. However, here in particular, the two different dimensions clearly relate to two “horizontal dimensions”, the dimension along the X-axis and the Y-axis as shown by Figures 8 and 9. This language is simply not indefinite to one of ordinary skill in the art as understood from the ordinary meaning of “dimensions” and the context of the claim language. Therefore, the rejection of Claim 21 under 35 U.S.C. 112 is improper.

### **The 35 U.S.C. §102 Rejection**

**C. The rejection of Claims 1-6, 8-11 and 21 under 35 U.S.C. 102(b) based on Bair (U.S. Patent No. 5,758,543) is improper.**

Claim 1 requires in pertinent part:

...a counterbalance operatively connected to said shift lever and having a second center of mass at a second location relative to said pivot different than said first location, producing a total center of mass for said shift lever located between said first location and said second location at a third location relative to said pivot, said third location different from said first location in three different dimensions.

[Claim 1 (emphasis added)]. The Examiner contends that that such a counterbalance is shown in *Bair*. However, *Bair* shows only a counterbalance “...such that the center of gravity of the shift lever assembly is offset in the forward direction from a plane 44 generally perpendicular to the axes of the output shaft 20 and containing the pivot axis 34 of the shift lever assembly.” [*Bair*, Column 4, ll 36-40]. In other words, *Bair* teaches only the adjustment of the center of gravity in one dimension (“forward direction”), not three dimensions as required by Claim 1.

The Examiner contends *Bair* discloses otherwise, stating “The positioning of the third location is all relative to how a person looks at the device.” [Final Office Action

(9/16/03), p. 3]. The Examiner fails to explain any further how *Bair* meets the limitations of Claim 1. The Examiner's cryptic statement, however, is belied by the requirement of Claim 1 that the "first location," "second location" and "third location" are all defined "relative to said pivot." [See Claim 1]. They are not "relative to how a person looks at the device" as the Examiner states. The Examiner must review *Bair* with this precise limitation. Because *Bair* fails to disclose the adjustment of the center of mass in three dimensions, Claim 1 and its dependents, Claims 2-11, are in condition for allowance.

**D. The rejection of Claim 4 under 35 U.S.C. 102(b) under *Bair* is improper.**

Claim 4 depends upon Claim 1 and requires the following additional element not required by Claim 1:

...said first location comprises a first horizontal location and a first vertical location and said second location comprises a second horizontal location and a second vertical location wherein said total center of mass is located between said first vertical location and said second vertical location.

[Claim 4]. As noted above, *Bair* teaches only the altering of the center of gravity in the "forward direction." Nothing indicates that *Bair* alters the center of gravity vertically. Accordingly, *Bair* does not anticipate Claim 4, which is separately allowable.

**E. The rejection of Claim 5 under 35 U.S.C. 102(b) under *Bair* is improper.**

Claim 5 depends upon Claim 4 and requires further "said total center of mass is vertically located closer to said pivot than said first vertical location." [Claim 5]. Again, *Bair* fails to disclose this feature. There is nothing within *Bair* that indicates an adjustment of the center of gravity vertically closer to the pivot. Therefore, Claim 5 is separately allowable.



**F. The rejection of Claim 6 under 35 U.S.C. 102(b) under Bair is improper.**

Claim 6 depends upon Claim 1 and requires the following additional limitation:

...said first location comprises a first horizontal location and a first vertical location and said second location comprises a second horizontal location and a second vertical location wherein said total center of mass is located between said first vertical location and said second vertical location and between said first horizontal location and said second horizontal location.

[Claim 6]. This claim requires the adjustment of the center of mass in both a horizontal and a vertical direction. *Bair* does not show the adjustment of the center of mass in both a horizontal and vertical direction. Therefore, Claim 6 is separately allowable.

**G. The rejection of Claim 21 under 35 U.S.C. 102(b) based on Bair is improper.**

Claim 21 requires the following counterbalance:

...a counterbalance operatively connected to said shift lever and having a second center of mass at a second location relative to said pivot different than said first location, producing a total center of mass for said shift lever located between said first location and said second location at a third location, said third location different from said first location in two different horizontal dimensions.

[Claim 21 (emphasis added)]. Accordingly, Claim 21 requires the third location to be different in two horizontal dimensions, say the x and y coordinates as shown in Figure 8. As shown in this figure, the counterbalance 94 not only extends back from shift lever 88 but also to the side of shift lever 88 into quadrant IV. In this way, the counterbalance 21 uniquely adjusts the center of mass in two different horizontal dimensions.

*Bair* fails to show this feature as the counterbalance 52 of *Bair* as shown in Figure 5 in an overhead view is symmetrical relative to the shift lever 31 in the horizontal plane. Again, as noted by *Bair*, the counterbalance only moves the center of gravity in one

horizontal direction, i.e. the “forward direction”, not in two horizontal directions. The Examiner fails to address this distinction completely. Because *Bair* fails to show “said third location different from said first location in two different horizontal dimensions” as required by Claim 21, this claim is in condition for allowance.

**H. The rejection of Claims 1, 7-9 and 21 under 35 U.S.C. 102(b) based on Onoguchi et al. (JP 3,134,367) is improper.**

The Examiner claims that 1, 7-9 and 21 are also anticipated by Onoguchi et al. (JP 3,134,367). As the basis for his rejection, the Examiner relies upon an untranslated reference written in Japanese. As a preliminary matter, the Examiner’s reliance on this untranslated reference is improper. In *Ex parte Gavin*, 62 USPQ2d 1680 (BPAI 2001), the examiner similarly sought to rely on a Japanese reference based on his understanding of an English-language abstract. The Board reversed, stating that the Examiner must provide an English-language translation of the entire patent or remove it as a reference. The Board further stated an abstract rarely fully describes an invention as claimed, and even if it does, no one could be sure without an examination of the specification.

Here, in the instant application, the Examiner relies on the untranslated figures of *Onoguchi et al.*, which he contends anticipates Claim 1 of the invention. Because the Examiner has not included a translation of *Onoguchi et al.*, it is improper for the Examiner to rely on this reference. Indeed, it is unclear as to the meaning of the disclosure of *Onoguchi et al.* in the absence of any translation. For this reason alone, the Examiner’s rejection of Claim 1, 7-9 and 21 is improper.

As to Claim 1, there is no indication in *Onoguchi et al.* that there is a counterbalance that has the following feature:

...a counterbalance operatively connected to said shift lever and having a second center of mass at a second location relative to said pivot different than said first location, producing a total center of mass for said shift lever located between said first location and said second location at a third location relative to said pivot, said third location different from said first location in three different dimensions.

[Claim 1 (emphasis added)]. Even assuming that the counterbalance (15) identified by the Examiner is, in fact, a counterbalance, the drawings relied upon by the Examiner do not show a total center of mass having “a third location relative to said pivot, said third location different from said first location in three different dimensions” as required by Claim 1. For this additional reason, Claim 1 and its dependents, Claims 2-11, are allowable.

**I. The rejection of Claim 7 under 35 U.S.C. 102(b) based on *Onoguchi et al.* (JP 3,134,367) is improper.**

Claim 7 requires that “said counterbalance comprises an isolator including a counterbalance mass and a resilient connection between said counterbalance mass and said shift lever reducing vibration of said shift lever during vehicle operation.” This feature is in addition to the features of Claim 1 upon which Claim 7 depends. The Examiner identifies element 14 of *Onoguchi et al.* as an isolator. However, the Examiner fails to explain his basis for concluding that element 14 serves as “a resilient connection between said counterbalance mass and said shift lever reducing vibration of said shift lever during vehicle operation.” The figures of *Onoguchi et al.* do not make this evident. For this reason, Claim 7 is separately allowable.

**J. The rejection of Claim 21 under 35 U.S.C. 102(b) based on *Onoguchi et al.* (JP 3,134,367) is improper.**

Finally, as noted above, Claim 21 requires a counterbalance that has a third location different from the first location of the shift lever in two different horizontal

dimensions. [Claim 21]. As seen if Figures 1 and 2, the alleged counterbalance 15 of *Onoguchi et al.* appears as symmetric relative to the shift lever 16 as the counterbalance of *Bair*. There is no showing that this counterbalance 15 serves to offset the center of mass of the shift lever 16 in two different horizontal dimensions. The fact that the counterbalance 15 appears symmetric in a horizontal plane dictates otherwise. For this reason, Claim 21 is in condition for allowance.

### CONCLUSION

For the foregoing reasons, Applicant requests allowance of Claims 1-11 and 21.

Respectfully submitted,

CARLSON, GASKEY & OLDS

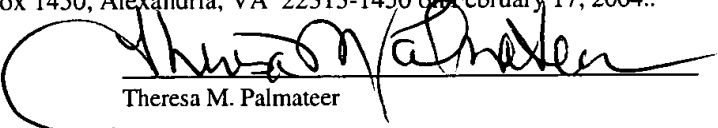
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Dated: February 17, 2004

### CERTIFICATE OF MAILING

I hereby certify that the enclosed **Appeal Brief (in triplicate) and Fees** is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to Mail Stop Appeal Brief - Patents, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on February 17, 2004..

  
Theresa M. Palmateer

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**APPENDIX OF CLAIMS**

1. A transmission assembly comprising:
  - a transmission having a member movable about a pivot between a plurality of gear positions;
  - a shift lever operatively connected to said pivot for manipulating said member, said shift lever having a first center of mass at a first location relative to said pivot; and
  - a counterbalance operatively connected to said shift lever and having a second center of mass at a second location relative to said pivot different than said first location, producing a total center of mass for said shift lever located between said first location and said second location at a third location relative to said pivot, said third location different from said first location in three different axes.
2. The transmission assembly of Claim 1 wherein said first location comprises a first horizontal location and a first vertical location and said second location comprises a second horizontal location and a second vertical location wherein said total center of mass is located between said first horizontal location and said second horizontal location.
3. The transmission assembly of Claim 2 wherein said total center of mass is horizontally located closer to said pivot than said first horizontal location.

4. The transmission assembly of Claim 1 wherein said first location comprises a first horizontal location and a first vertical location and said second location comprises a second horizontal location and a second vertical location wherein said total center of mass is located between said first vertical location and said second vertical location.

5. The transmission assembly of Claim 4 wherein said total center of mass is vertically located closer to said pivot than said first vertical location.

6. The transmission assembly of Claim 1 wherein said first location comprises a first horizontal location and a first vertical location and said second location comprises a second horizontal location and a second vertical location wherein said total center of mass is located between said first vertical location and said second vertical location and between said first horizontal location and said second horizontal location.

7. The transmission assembly of Claim 1 wherein said counterbalance comprises an isolator including a counterbalance mass and a resilient connection between said counterbalance mass and said shift lever reducing vibration of said shift lever during vehicle operation.

8. The transmission assembly of Claim 1 including a housing supporting said pivot wherein said counterbalance is located at least partially outside of said housing.

9. The transmission assembly of Claim 1 including a housing supporting said pivot wherein said pivot is located at least partially inside of said housing.

10. The transmission assembly of Claim 1 wherein said first center of mass generates a first moment urging said member in a first direction out of one of said gear positions and said second center of mass generates a second moment in a second direction opposite said first direction to maintain said member in a desired gear position.

11. The transmission assembly of Claim 10 wherein a predetermined resistance level maintains said member in said desired gear position and said first moment is greater than said predetermined resistance level and the sum of said first and second moment is less than said predetermined resistance level.

21. A transmission assembly comprising:

a transmission having a member moveable about a pivot between a plurality of gear positions;

a shift lever operatively connected to said pivot for manipulating said member, said shift lever having a first center of mass at a first location relative to said pivot; and

a counterbalance operatively connected to said shift lever and having a second center of mass at a second location relative to said pivot different than said first location, producing a total center of mass for said shift lever located between said first location and said second location at a third location, said third location different from said first location in two different horizontal axes.